Name:

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Geometry, Period

Due Date: Fri, 12 Sep 2014

**Geometry**

**Homework**



***Remember: the Unit 1 Test*** *(Linear Algebra: lines & manipulating equations)* ***is TOMORROW! Study!***

***Word Problems:***

*Eliminate the noise!*

Instructions: (1) Read each problem & cross out the “noise” (irrelevant info). (2) Choose which mathematical interpretation represents what the word problem is actually asking. (3) Justify your answer. (4) Solve.

1. The area of a triangle can be calculating using the equation , where *b* is the base of the triangle and *h* is its height. Suppose the base of the triangle is some number , giving the formula *.* Create an equation that would find the value of ***x***.

*Justify your choice of mathematical interpretations:*

*Solution work:*

* 1. **,** *rewrite x in terms of b*

1. The formula for converting degrees Celsius (*C*) to degrees Fahrenheit (*F*) is 

A chemistry student knows that the temperature in degrees Kelvin (*K*) is 273.15 degrees greater than in degrees Celsius, so the formula to convert degrees Kelvin to degrees Fahrenheit is 

What formula can you use to convert degrees Fahrenheit to degrees Kelvin?

*Justify your choice of mathematical interpretations:*

*Solution work:*

* 1. Solve for K (Kelvin)
  2. Solve for F (Fahrenheit)
  3. Solve for C (Celsius)
  4. Simplify
  5. Combine like terms

1. Juan is traveling between the US and Mexico and wants to exchange his US dollars into Mexican pesos. The exchange rate is of a dollar per peso. The currency exchange location also charges a fee of $10 for the transaction. Juan represents this formula as , simplifying since $125 =$10. Juan is curious how much 1 dollar is worth. Rewrite this equation in terms of d.

*Justify your choice of mathematical interpretations:*

*Solution work:*

* 1. ***$125 =$10d****, solve for d*
  2. ***$125 =p****, solve for p*

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| 1) **Writing:** Describe the **steps** you would take to write an equation in point-slope form of the line that passes through the point (3, - 2) and (4, 5). | |
| 2) Write an equation in **point-slope form** of the line that passes through the given point and has the given slope *m.*   |  |  |  | | --- | --- | --- | | a) | b) | c) | | |
| Write an equation in **slope-intercept** form of the line with the given slope and y-intercept.  3) Slope: 5, y-intercept: 7 4) Slope: , y-intercept: 2 5) Slope: , y-intercept: 1  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | |
| Write an equation in **slope-intercept** form of the line that passes through the given point and has the given slope *m.*  ***Show your work!***  6)  7)  8)  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | |
| Write an equation in **point-slope** form of the line that passes through the given points.  ***Show your work!***  9)  10)  11)  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | |
| 12) A stylist earns $10 an hour plus $3 per haircut. Which equation represents the stylist’s hourly earnings?  F.  G.  H.  J.  K. none of the above | 13) Solve the following equation.    F.  G.  H.  J.  K. none of the above |